REMARKS

This Amendment is submitted in response to the final Office Action of March 6, 2008. Claims 1-55 are pending with claims 1, 13, 23, 35, 41, and 48 being independent. Claims 1, 6, 13, 17, 23, 33, 35, 41 and 48 amended, Claims 4-5, 7-11, and 43-46 are canceled, and Claim 56 is added by this response. No new matter is included and support can be found at least in paragraphs [0037]-[0055] and Fig. 3b. A Request for Continued Examination and an Interview Summary are submitted herewith.

I   Interview of May 13, 2008

Applicants thank Examiner Zhong for granting an in-person interview on May 13, 2008. An Interview Summary stating the substance of the interview is submitted herewith. Though agreement was not reached, Examiner Zhong indicated that the amendments made by this response appear to overcome the art of record.

II   Rejection Under 35 U.S.C. §112

The Office Action rejected Claim 33 under 35 U.S.C. §112, second paragraph, because the claim included the term "proximate." Applicants respectfully disagree. However, Claim 33 as amended no longer includes the term "proximate." For at least the above reason, it is respectfully submitted that this rejection is moot and should be withdrawn.

III   Rejections Under 35 U.S.C. §103

The Office Action rejected Claims 1-7, 9-15, 17-25, 27-45 and 47-55 under 35 U.S.C. §103 as being unpatentable over U.S. Patent No. 6,728,965 ("Mao") in view of U.S. Patent No. 5,732,217 ("Emura"). The Office Action rejected Claims 8, 16 and 26 under 35 U.S.C. §103 as being unpatentable over Mao in view of Emura in further view of U.S. Patent Application Publication No. 2005/0240961 ("Jerding"). The Office Action rejected Claim 46 under 35 U.S.C. §103 as being unpatentable over Mao in view of Emura in further view of U.S. Patent No. 5,892915 ("Duso"). Applicants respectfully disagree.

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The present response discusses the rejections of the independent claims. The rejection of claim 1 will be discussed separately from the rejection of claims 13, 23, 35, 41, and 48.

A. Rejection of Claims 13, 23, 35, 41, and 48

Claims 13, 23, 35, 41, and 48 stand rejected over Mao in view of Emura. A prima facie case of obviousness, however, requires that the combination of the references teach each and every element of the claims. As will be shown below, Mao, in view of Emura, does not teach 1) transmitting a retained intra frame and no dependent frames for a requested channel <u>as a unicast communication for static display</u>, and 2) joining the multicast communication by providing a <u>subsequent independent frame and a plurality of subsequent dependent frames for dynamic display</u>. Although each of independent claims 13, 23, 35, 41, and 48 may be worded slightly different, each has a single independent frame unicasted for static display and then a joining to a multicast communication by a subsequent independent frame and its dependent frames.

Mao discloses a device for changing the channel in a digital video delivery system. Column 2, lines 26-28. The channel changer captures the multiple compressed video signals and stores each signal in a cache buffer. Column 2, lines 33-35. A processor indexes or points to the synchronization frames for each buffered signal. Column 2, lines 35-36. When a subscriber requests a specific channel, the processor accesses the requested video signal using the indexed frame, and as a result, reduces the amount of time needed to locate a first frame of the new channel to send. Column 2, lines 37-44.

Hence, Mao is able to send a synchronization frame that it has previously indexed, in response to a channel change event. Column 9, lines 9-25. The indexed synchronization frame <u>and all of its dependent frames</u> are then easily accessible and the dynamic display of the multicast communication can begin in Mao starting at the indexed synchronization frame. Column 9, lines 9-25. As such, and as the Examiner

has pointed out, this scheme fails to teach unicasting an independent frame frame and no dependent frames, as is presently claimed.

Emura does not cure the deficiencies of Mao. Emura discloses a video on demand server capable of extracting a subset of periodically occurring "keyframes" from a video stream and sending that subset so that video can be displayed as a high-speed playback. Column 6, line 47 – column 7, line 7. Thus, in Emura, a high-speed playback comprises a series of keyframes played back at high speed where the keyframes are a small subset of all of the frames that make up the video and the keyframes are spaced out in time. Column 6, line 47 – column 7, line 7. Emura is essentially an approximation of what the user might see since a spaced out sampling of all of the video frames are selected and shown on the screen.

Hence, Emura fails to teach "static display" of an independent frame because Emura obtains a series of keyframes and displays them as part of a timed, flowing stream of images, with none of the images being displayed any longer than any other image. Column 6, line 42 – column 7, line 7. On the contrary, the "static display" of the unicasted independent frame is defined in the present claim as being displayed for an undetermined amount of time. This means the statically displayed frame is shown until the multicast communication can be joined, which could be longer or shorter than the amount of time that each frame is shown, once the dynamic display occurs, but instead depends on where in the stream the current multicast communication is (i.e., closer or farther from the next independent frame).

Moreover, Emura cannot join a multicast communication with a subsequent independent frame <u>and a plurality of subsequent dependent frames</u> for dynamic display. Emura merely displays a series of keyframes, spaced out evenly over time, to simulate high speed playback. Column 6, line 42 – column 7, line 7. As such, each of the keyframes in Emura is an "independent frame," so as each keyframe is shown, <u>no</u> <u>dependent frames are shown</u>, so Emura does not teach this element of the claims either.

Column 2, lines 56-62. For at least the above reasons, it is respectfully submitted that Claims 13, 23, 35, 41, and 48 and their dependent claims are patentably distinguished from Mao in view of Emura and are in condition for allowance.

B. Rejection of Claim 1

Claim 1 stands rejected over Mao in view of Emura. A prima facie case of obviousness, however, requires that the combination of the references teach each and every element of the claims. As will be shown below, Mao, in view of Emura, does not teach 1) transmitting a retained intra frame and no dependent frames for the requested channel as a unicast communication <u>for static display</u>; 2) if a first next decodable non-intra frame after the first retained intra frame <u>is at least a joining time after a send point</u> of the buffered multicast video stream segment, the transmitted retained intra frame is the first retained intra frame and the first next decodable non-intra frame after the first retained intra frame is a joining frame; 3) if the first next decodable non-intra frame after the first retained intra frame <u>is less than the joining time after the send point</u> of the buffered multicast video stream segment, the transmitted retained intra frame is the second retained intra frame and a second next decodable non-intra frame after the second retained intra frame is the jointing frame; and 4) synchronizing a multicast joining operation to the multicast group corresponding to the requested channel, wherein synchronizing includes ensuring a first multicast frame after the multicast joining operation is the joining frame.

Mao and Emura have been described in sub-section A. Claim 1 includes all of the limitations of the independent claims discussed in sub-section A. Additionally, claim 1 includes a decision making process based upon a joining time. The Office Action indicates that the transmitting time between a user and a BDT in Mao is a joining time. However, even if Mao were interpreted to include such a joining time, Mao still fails to disclose or suggest basing any decision making process that is based upon the joining time. To the contrary, it is merely a period of time that elapses without

consequence in Mao. Column 7, lines 39-61. It is respectfully submitted that Mao does not disclose or suggest extracting a retained intra frame being based at least partly upon a joining time.

For this reason, as well as the reasons described in sub-section A, it is respectfully submitted that Claim 1 and its dependent claims are patentably distinguished from Mao in view of Emura and are in condition for allowance.

C. Rejection of Dependent Claims

Claims 16 and 26 stand rejected over Mao in view of Emura in further view of Jerding. The Office Action relies on Jerding to disclose a join command issuer that is adapted to send a join instruction message to the particular client, the join instruction message stipulating an appointed time at which the particular client is to transmit a join message to a replication point. Paragraph 0066. Jerding discloses a method for providing a screen saver to a user through an interactive media services client. Paragraph 0009. The method includes providing a system operator with an interface to the programmable media services server and providing control options to allow the systems operator to select media to be presented in the screen saver utility. Paragraph 0009.

The Office Action states that Fig. 4I and paragraph 0066 of Jerding disclose an appointed time at which a client transmits a join message. Specifically, the appointed time implied and is merely as soon as the client can possibly send a response after receiving the instruction.

However, it is respectfully submitted that Jerding does not disclose or suggest 1) transmitting a retained intra frame and no dependent frames for a requested channel <u>as a unicast communication for static display</u>, and 2) joining the multicast communication by providing a <u>subsequent independent frame and a plurality of subsequent dependent frames for dynamic display</u>. It is therefore respectfully submitted that Jerding does not cure the deficiencies of Mao and Emura discussed above.

For at least the above reasons, it is respectfully submitted that Claim 16 is patentably distinguished from Mao in view of Emura in futher view of Jerding and is in condition for allowance. For similar reasons, it is respectfully submitted that Claim 26 is patentably distinguished from Mao in view of Emura in futher view of Jerding and is in condition for allowance.

IV   New Claim

It is respectfully submitted that none of the cited art, alone or in combination, disclose or suggest sending a channel change request to a server, the channel change request indicating a requested channel, the server buffering a multicast video stream segment, the buffered multicast video stream segment including a first retained intra frame and a second retained intra frame, the first retained intra frame being before the second retained intra frame in the buffered multicast video stream segment, the requested channel corresponding to a multicast group and the buffered multicast video stream segment corresponding to the requested channel, receiving a retained intra frame for the requested channel as a unicast communication, wherein if a first next decodable non-intra frame after the first retained intra frame is at least a joining time after a send point of the buffered multicast video stream segment, the transmitted retained intra frame is the first retained intra frame and the first next decodable non-intra frame after the first retained intra frame is a jointing frame, and wherein if the first next decodable non-intra frame after the first retained intra frame is less than the joining time after the send point of the buffered multicast video stream segment, the transmitted retained intra frame is the second retained intra frame and a second next decodable non-intra frame after the second retained intra frame is the jointing frame, statically displaying the received retained intra frame, receiving as a multicast communication a portion of the multicast video stream corresponding to the requested channel, wherein the initial multicast frame of the multicast video stream received is the joining frame, the portion including a plurality of consecutive multicast frames of the

multicast video stream, and switching from statically displaying the received retained intra frame to displaying the portion of the multicast video stream.

V   M.P.E.P. §707.07(j)

M.P.E.P. §707.07(j) states:

> "...If the examiner is satisfied after the search has been completed that patentable subject matter has been disclosed and the record indicates that the applicant intends to claim such subject matter, the examiner may note in the Office action that certain aspects or features of the patentable invention have not been claimed and that if properly claimed such claims may be given favorable consideration..."

Applicants respectfully request that the Examiner make Applicants aware of any subject matter disclosed by the present application which the Examiner believes is patentable. By doing so, the Examiner would help expedite prosecution by enabling Applicants to amend the present claims or draft new claims directed to such subject matter.

CONCLUSION

Accordingly, in view of the above amendment and remarks it is submitted that the claims are patentably distinct over the prior art and that all the rejections to the claims have been overcome. Reconsideration and reexamination of the above Application is requested. Based on the foregoing, Applicants respectfully requests that the pending claims be allowed, and that a timely Notice of Allowance be issued in this case. If the Examiner believes, after this amendment, that the application is not in condition for allowance, the Examiner is requested to call the Applicant's attorney at the telephone number listed below.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicants hereby request any necessary extension of time. If there is a fee occasioned by this response, including an extension fee that is not

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Respectfully submitted,

Microsoft Corporation

Date: June 6, 2008   By: /MacLane C. Key/

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Interview Summary	Application No.	Applicant(s)
	10/684,138	BARRETT ET AL.
	Examiner	Art Unit
	JUN FEI ZHONG	2623

All participants (applicant, applicant's representative, PTO personnel):

(1) *JUN FEI ZHONG*.   (3)*MacLane Key*.

(2) *Vivek Srivastava*.   (4)_____.

Date of Interview: *13 May 2008*.

Type: a)☐ Telephonic   b)☐ Video Conference
      c)☒ Personal [copy given to: 1)☐ applicant   2)☒ applicant's representative]

Exhibit shown or demonstration conducted: d)☐ Yes   e)☒ No.
    If Yes, brief description: _____.

Claim(s) discussed: *1*.
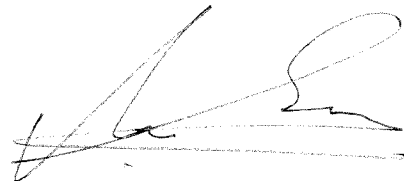
Identification of prior art discussed: *2005/0081244*.

Agreement with respect to the claims f)☒ was reached.   g)☒ was not reached.   h)☐ N/A.

Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: *The proposed amendment as to claim 1, overcome the cited prior art, and requrie further search*.

                                    Appears to

(A fuller description, if necessary, and a copy of the amendments which the examiner agreed would render the claims allowable, if available, must be attached. Also, where no copy of the amendments that would render the claims allowable is available, a summary thereof must be attached.)

THE FORMAL WRITTEN REPLY TO THE LAST OFFICE ACTION MUST INCLUDE THE SUBSTANCE OF THE INTERVIEW. (See MPEP Section 713.04). If a reply to the last Office action has already been filed, APPLICANT IS GIVEN A NON-EXTENDABLE PERIOD OF THE LONGER OF ONE MONTH OR THIRTY DAYS FROM THIS INTERVIEW DATE, OR THE MAILING DATE OF THIS INTERVIEW SUMMARY FORM, WHICHEVER IS LATER, TO FILE A STATEMENT OF THE SUBSTANCE OF THE INTERVIEW. See Summary of Record of Interview requirements on reverse side or on attached sheet.

VIVEK SRIVASTAVA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

Examiner Note: You must sign this form unless it is an Attachment to a signed Office action.   Examiner's signature, if required